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1.0 Introduction

1.1 Introductory Statement

As Auckland Council invests in synthetic turf to meet sports field capacity targets, as determined by the Sports Field Capacity Development (SFCD) programme, there is a need to ensure a consistent approach to the design of synthetic turf, such that the minimum requirements of Auckland Council are met.

In particular, is the need to ensure surfaces are fit for purpose for at least the warranty period and preferably much longer and are therefore designed, specified and installed such that the maximum possible lifespan can be achieved. In addition, Council is aware of the myriad of options available on the market and has invested considerable time to understand how each of the components of synthetic work together to create a system and then determine which of those components to specify or convey preferences for.

This document has a number of key purposes:

1. To provide the basis for a consistent approach when designing and specifying synthetic turf projects in the Auckland region.
2. To indicate to professional service suppliers the preferred approach for the turf, surrounds and ancillary components, although we acknowledge that site conditions, field layout and overall configuration may require any number of deviations from the details set out in Section 2.
3. To inform professional service suppliers prior to tendering for professional service contracts of the level of detail and knowledge already held within council to ensure that pricing does not include unnecessary fact-finding and investigation work.
4. To speed up the concept design process.
5. To ensure that procurement documents include specific information that must be submitted by the synthetic turf suppliers and in doing so they understand and agree to the extent of use, type of use and maintenance these council-owned surfaces will be subject to. See the Checklist in Appendix 3.

1.2 Note for Consultants

The aim of this document is to help professional service tenderers understand Council’s requirements at the time of pricing for professional service contracts and then feed into the design, specification and procurement process once a professional service tender has been awarded.

It sets out Auckland Council’s current requirements for synthetic turf fields, their immediate surrounds and preferences regarding ancillary items which should assist with the design process.

However, Auckland Council does not want this document to stifle innovation. We understand that the synthetic turf industry is fast-paced and evolves rapidly. As such, at any time during the design process, or via feedback from suppliers during the procurement process, Auckland Council and its professional service suppliers shall be receptive and adaptive to new technology and new approaches.
2.0 Design Guidelines

This section outlines preferences for specific items that shall need to be considered and/or included in the design process and provides some information on Auckland Council’s preferences. Consultants are to ensure that the design requirements detailed in this section are incorporated into their design drawings and written specifications where relevant and practical.

2.1 Planning Context

After considerable investigation into synthetic turf, this document is presented as a means to ensure that whichever design consultant is engaged to carry out professional services, the process of achieving a suitable design is accelerated and made more cost effective. To do this, a number of issues have to be ratified from the beginning by Council, such as:

1. Multi-use surfaces. The Sports Field Capacity Development programme will have already identified which sports are under-supplied and therefore which sporting code the development is intended for. As such, the likelihood is that most surfaces will be code-specific and this will be dictated in the Professional Services brief. However, where a site has been identified as being suitable for a multi-purpose field, the Professional Services brief will convey this. Multi-use fields shall need to be designed and constructed to satisfy IRB and FIFA Recommended 1 Star requirements.

2. FIFA Star rating. Auckland Council will specify all football-specific fields to be built to achieve FIFA Recommended 2 Star certification immediately after construction (allowing for the 3 months grace offered by FIFA). As such, tendered products must have successfully passed the FIFA Quality Concept Laboratory Test Procedure to FIFA 2 Star standards.

3. In addition, the tendered products must also have passed extended wear tests (at least 80,000 cycles on a standard Lisport machine) carried out by an independent laboratory. The report must demonstrate only minimal fibre flattening, cracking and splitting after 80,000 cycles using photographs and comments from the laboratory assessor.

4. After construction, Auckland Council may maintain fields at FIFA Recommended 2 Star status (via annual certification tests) or reduce certification to FIFA Recommended 1 Star status with certification every 4 years. This will be at the discretion of Council.

5. Key Deliverables. Professional service suppliers are expected to take a holistic view of the synthetic turf surface and accommodate a wide range of ancillary factors when designing the fields. The following outcomes are expected during the Concept Design phase, in addition to the typical engineering requirements:

   a. A ‘Circulation Plan’ showing pedestrian movement around the proposed field and onto and off the surface at changeover times to ensure there are sufficient player access gates and their positioning has been thought through. This plan should also show areas where footpaths may double as vehicle access routes and will therefore need reinforcement.

   b. A ‘Lighting and Light Spill Plan’ needs to be presented that shows field floodlighting levels, spill and pedestrian lighting positions and spill. Lighting control mechanisms must be in place with sensors/switches for both systems.
c. A ‘Park Furniture, Signage and Planting Plan’ is to indicate the location and number of rubbish bins, seats and supplementary planting and how this plan fits into the Circulation Plan to reduce litter and simplify maintenance.

d. Concept Design plans should also consider how and where goal posts, moveable fences, barrier fences and other items shall be stored when not in use.

### 2.2 FIFA & IRB accredited surfaces

All football-specific synthetic turf fields are to be designed and installed such that they can achieve FIFA 2 star certification immediately following construction.

All rugby-specific surfaces are to be installed to IRB Regulation 22 standards such that they achieve IRB certification immediately following installation.

All dual-use football and rugby surfaces are to be installed to IRB Regulation 22 standards such that they achieve IRB certification immediately following installation and FIFA 1 Star certification immediately following construction.

The cost of the initial field test by an accredited laboratory is to be included in the tendered construction fee.

Note to consultants: The initial field test is to be a specific item in the construction schedule.

### 2.3 Turf

#### 2.3.1 Turf type

The anticipated usage of the turf and the proposed maintenance programme are to be advised and Tenderers are to bid only with surfaces they consider suitable for the location and usage scenario.

It is Auckland Council’s intention to install the most durable product for long-term community use, suitable for formal and informal recreation where the field is not fenced. Therefore, some preferences shall need to be conveyed to assist Tenderers to bid with an appropriate system.

Field suppliers should be aware that the use of flat-soled shoes and metal sprigs cannot be ruled out entirely.

Turf is to be green in colour.

#### 2.3.2 Pile height

Auckland Council will accept pile heights no less than:

<table>
<thead>
<tr>
<th>Football</th>
<th>Rugby/multi-use</th>
</tr>
</thead>
<tbody>
<tr>
<td>40mm</td>
<td>60mm</td>
</tr>
</tbody>
</table>

#### 2.3.3 Pile durability

Along with player safety, the durability of the total turf product is important for achieving rate-payer value and system longevity. While product warranties extend for only 7-8 years, we
consider that it is possible with appropriate initial product selection and sufficient maintenance to extend the life of the turf longer.

Therefore, Auckland Council is requesting that all turf products tendered for its projects have undergone Lisport testing (on a standard Lisport machine) to at least 80,000 cycles and that following the 80,000 cycles (or more) the turf products have not flattened, cracked or split excessively as evidenced in an independent laboratory test report, which is to be supplied.

2.3.4 Field dimensions and markings

Field markings are to be included such that they meet the requirements of New Zealand Football and the New Zealand Rugby Football Union as stipulated in the Laws of the Game:

---

**Football**

- Law 1 of the FIFA Laws of the Game stipulates field dimensions for football. However, liaison with Auckland Football has indicated the following pitch size preferences:

<table>
<thead>
<tr>
<th>Pitch size</th>
<th>Min (m)</th>
<th>Max (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
<td>90 x 60</td>
<td>110 x 70</td>
</tr>
<tr>
<td>Half</td>
<td>60 x 45</td>
<td>70 x 55</td>
</tr>
<tr>
<td>Quarter</td>
<td>45 x 30</td>
<td>55 x 35</td>
</tr>
<tr>
<td>Eighth</td>
<td>30 x 20</td>
<td>35 x 27</td>
</tr>
</tbody>
</table>

- Line width shall not exceed 120mm at any point. Line width shall be consistent on the field and shall not vary by 10mm from the specified width anywhere on the field of play.

- Technical area dimensions are presented in the FIFA Laws of the Game document (but are not subject to a specific Law). It states that the technical area extends 1m either side of the designated seated area and extends forward up to a distance of 1m from the touch line (see FIFA Rules of the Game, 2013, pg. 57).

**Rugby**

- Law 1.2 of the IRB Laws of the Game stipulates field dimensions for rugby as follows (note that ARU and ARL may prefer/permit slightly different dimensions):

<table>
<thead>
<tr>
<th>Pitch aspect</th>
<th>Min (m)</th>
<th>Max (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>94</td>
<td>100</td>
</tr>
<tr>
<td>Width</td>
<td>68</td>
<td>70</td>
</tr>
<tr>
<td>In-goal</td>
<td>6</td>
<td>22</td>
</tr>
</tbody>
</table>

- Line width shall not exceed 12cm at any point. Line width shall be consistent on the field and shall not vary by 10mm from the specified width anywhere within the playing area.
General

Primary field markings are to be white. Where fields are intentionally multi-use, all secondary field markings are to be yellow or as agreed with Auckland Council. If secondary line markings are not installed permanently, ‘flecks’ are to be installed into the turf to aide marking out temporary lines.

It is a general preference that training areas are installed with line markings. Where the training area is part of a football complex, a full sized goal, six-yard box and penalty spot is to be installed for goal keeper warm-ups and penalty taking practice.

Final agreement on all training area and warm-up area markings shall be made in conjunction with Council and stakeholder representatives. During the design phase, consultants need to consider the orientation of fields and the proximity to local properties to optimise fence height and minimise the likelihood of neighbour annoyance.

2.3.5 Perimeter area

Perimeter dimensions are to be included as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Ends (m)</th>
<th>Sides (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>3+</td>
<td>3+</td>
</tr>
<tr>
<td>Rugby</td>
<td>5+</td>
<td>5+</td>
</tr>
</tbody>
</table>

Note that Auckland Football has explicitly requested the minimum boundary dimension of 3m must be achieved, even if it results in a smaller playing field area. Any proposed deviations from this must be agreed by all parties and only in instances where there is strong reason to do so.

The safety perimeter applies from the edge of the field of play (FIFA) or playing area (IRB) to any hard surface or fixed item (i.e. fences, lightpoles, concrete edging, player shelters etc.) unless specifically agreed with Auckland Council and its stakeholders.

The safety perimeter must be designed and built to the same standard and specification as the main playing field. Auckland Rugby Union may accept smaller safety margins where 5m is impractical.

2.4 Shockpad

Shockpads may or may not be installed depending on the system being tendered. Where installed, the shockpad must be of sufficient quality that it will not fail prematurely nor should it be the sole cause of an inability to achieve re-certification, even in high wear areas, during the warranty period. All proposed systems (with or without a shockpad) must be proven with appropriate certification and re-certification, specific to the intended sport (i.e. FIFA or IRB). Systems that do not include a shockpad must be able to be maintained using typical machinery and practices in use throughout the region. The Auckland Council Regional Maintenance plan is to be included with tenders and tenderers are to acknowledge the receipt of this plan and confirm it to be adequate. If not, tenderers are to supply a priced alternative schedule (see Checklist for more details).
2.5 Drainage & Field Edging

2.5.1 Edging
All synthetic turf fields are to be located within a raised, kerbed field edge that shall also incorporate the 1.2m spectator fence in its construction. The kerbing shall be shaped such that the player shelters are located within the raised kerbing, (i.e. at pitch level), with the spectator fence installed around the back of the shelter or butted up and connecting to the ends & back of the shelter.

Kerbing shall be sufficiently high that any crumb rubber that is moved under heavy rainfall conditions is retained within the playing field area (50mm is considered adequate).

Consultants should note that the 1.2m high spectator fence is to be measured from the pedestrian footpath, as shown in the illustration in Appendix 1. See Appendix 2 for an example of this type of installation.

2.5.2 Surface drainage
Where surface drainage is installed to intercept overland flow from the field under large rain events, water is to pass through accessible catchpits prior to connecting to the field drainage and/or principal stormwater. Those catchpits must feature enviro-pods (or similar) to prevent the movement of crumb-rubber into the drainage infrastructure and off-site.

Where banks extend down towards the field, a swale is to be formed between the base of the bank and the footpath such that overland flow from the bank can be intercepted and then directed into the drainage system. Where practical, drainage from the footpath and bank can be captured in the same swale.

Where appropriate, Council will expect professional services suppliers to make sustainable design recommendations, such as through the use of rain gardens.

See Section 2.7.2 for footpath recommendations.

2.5.3 Base drainage
The base is to drain into a series of lateral drains which outlet via a main collector drain (or drains) to the local stormwater infrastructure. Auckland Council would prefer round-pipe to be used for ease of inspection and cleaning after installation however flat pipe may be required due to its crush strength.

2.6 Irrigation & Water Recycling

2.6.1 Irrigation
Synthetic turf fields do not require automated pop-up sprinkler systems or a system of cannons around the surface. However, designers should incorporate water supply into the design sufficient for serving hand-hoses for flushing the surface after cleaning localised spills and stains and supplying drinking fountains around the turf area. A hydrant system for operating travelling irrigators capable of flushing the entire surface may also be required and if so, will be included in the professional service brief.

2.6.2 Water recycling
Currently, Auckland Council is not pursuing water recycling at synthetic turf sites. However, this may change and designers should seek guidance on this on a case-by-case basis.
Where water recycling is required, professional service briefs for design shall clearly state this requirement.

2.7 Surrounds

2.7.1 Landscape architecture

Every effort should be made to integrate synthetic turf sports fields into the park environment in an aesthetically pleasing way. Designers are expected to engage a landscape architect (internal or external to the lead consultants company) and consult with the PSR Design Team.

2.7.2 Footpaths

Where possible, footpaths associated with a synthetic turf surface shall be designed with the following considerations:

- Footpath width shall be a minimum of two metres, unless the paths incorporate the lightpoles; in which case they are to be a minimum of three metres wide.
- Footpaths are to fall away from the turf surface where possible (approx. grade 2%).
- Footpaths are to slope away from the turf into nearby soil areas and surface water is to be channelled into catchpits via swale drains systems adjacent to the footpath.
- Where footpaths are not able to slope away from the field, ACO drains (or similar enclosed drainage channels) are to be located on the low side of the footpath adjacent to the kerbing and raised area that contains the spectator fence. This is not the preferred approach and should only be followed if site constraints dictate it. A dish channel such as that installed at Michaels Avenue Reserve is not acceptable for future designs.
- Footpaths extend around the entire perimeter of the surface.
- Where practical, footpaths around the turf are to be kept separate from other footpaths that may be used by park users to travel through the park.
- Black oxide concrete additive at 5% is recommended to remove initial glare. Other additives such as shell and pebbles can be considered on a case-by-case basis. Concrete can be of the ‘exposed aggregate’ type but exposure should be limited to simplify footpath sweeping.
- Footpaths between the turf surface and the carpark and changing rooms shall be carefully positioned and shaped such that users of the synthetic turf do not have to travel over soil-based areas.
- All footpath sections that are also expected to carry vehicle traffic shall be appropriately designed with reinforcing materials such that vehicle traffic will not result in damage to the footpath.

2.7.3 Lighting

All synthetic turf surfaces that feature floodlights are to be designed as per the document Sports Field Lighting Guidelines, available from Auckland Council and will have been issued with a Professional Services brief for synthetic turf sports field design.

Pedestrian floodlighting is also required to assist with movement of pedestrians off the park after the floodlights have been switched off. Pedestrian lighting is to be attached to the floodlight poles where possible or on separate poles if necessary. The Lighting Plan is to show these and their spill. Care should be taken to ensure that pedestrian lighting does not provide sufficient light to allow people to play on the fields after the main lights switch off.
The entire lighting system is to feature a series of switches and sensors to allow full control over the pedestrian lights and sports field flood lights.

### 2.7.4 Fences

Unless specified otherwise in the project brief, all synthetic turf surfaces are to feature:

- 1.2m high spectator fence around the perimeter of the field, installed in conjunction with the kerbed edging around the field. Spectator fence height shall be measured from the footpath side of the fence.

The following should also be noted:

a) Secondary security fencing on the outside of the footpath with gates restricting general access is not generally necessary but will be considered on a case-by-case basis. The need for this will be articulated in the Professional Services brief. If required, secondary fencing shall be at least 2.4m high and feature key-coded/swipe card access gates for player and spectators.

b) Higher fences are required at goal ends, possibly up to 6m at its highest point. Depending on site configuration, the consultant can determine if the best location of the high fence is as part of the spectator fence or on the outside of the pedestrian footpath.

c) Where sites are located adjacent to roads and watercourses, fences shall be sufficiently high to limit the frequency of balls exiting the ground.

**Typical fence details are to be as follows:**

- Galvanised iron pipe construction.
- 50 NB 3.6 gauge corner and gate posts, 2.4m centre-to-centre.
- 40 NB 2.3 gauge iron pipe intermediate posts and all rails.
- 2.5 gauge galvanised panels, 50mm diamond pattern laced to posts and rails, including the intermediate rails.
- Fences can be coloured black although a galvanised finish is also acceptable.
- Fences to include straining wires to prevent the wire mesh from sagging over time.

### 2.7.5 Access gates

The consultant is to produce a layout plan of the site showing field configurations and access gate positions.

**Player and match official access**

Access gates must be of sufficient number and suitably positioned to ensure ease of player access onto and off the field during busy times. Consideration should be given to access when different field configurations are in use – such as midget games on 1/8th fields. This detail must be captured in the Concept Design phase on the ‘Circulation Plan’ and signed-off by Auckland Council and stakeholder representatives.

Consultants should consider the number and position of access gates on club-room sides vs. non-clubroom sides of the field, the location of training areas and the likely method of ball retrieval by the goal keeper should balls go beyond the spectator and higher fencing.
Player and match official access gates are to be powder-coated yellow. Where there are two gates (i.e. through a security fence and the 1.2m spectator fence), both gates shall be powder coated yellow.

**Turf maintenance & emergency access**

Each field shall feature at least one double-gated access point for maintenance machinery and emergency access.

Gates need to be provided to allow for goal posts of various sizes to be moved on and off the fields as necessary.

Turf maintenance and emergency access gates are to be powder-coated red. Where there are two set of gates (i.e. through a security fence the 1.2m spectator fence), both sets shall be powder coated red.

**General details**

*Typical gate details shall be as follows:*  
  - Player and match official access gates shall be 1.0m wide, self-closing and open outwardly. They are to feature a latch closing mechanism and incorporate an ability to be padlocked shut.  
  - Turf maintenance and emergency access gates shall be 2 x 2.0m wide and feature spring-loaded jockey wheels to support the weight of the gate. They are to feature a mechanism for locking them closed.  
  - Gate posts shall be 50 N.B 3.6 gauge galvanised iron pipe powdercoated red or yellow.  
  - Gates shall be constructed using 40 NB, 2.3 gauge iron pipe.  
  - Panels shall be 2.5 gauge, 50mm diamond pattern laced to posts and rails.  
  - Powdercoating shall be as follows:  
    - Yellow: PPG PE549/2064 ‘YELLOW’.  
    - Red: PPG PE549/077 ‘FLAME’.  
  - Latches do not necessarily need to be powdercoated.

### 2.8 Ancillary items

#### 2.8.1 Dug-outs/player shelters

Dugouts of at least 5m in length shall be allowed for in the design, set back from the field edge such that minimum safety margins are maintained.

Auckland Council will nominate a local manufacturer or preferred supplier for dug-out supply.

#### 2.8.2 Corner flags

Corner and half-way line flags are to feature poles with a thin spike welded to the bottom of the pole. The turf is to feature a metal sleeve in the base into which the spike is located. Even if the metal sleeve fills with crumb rubber, this system has been shown to be effective. Alternative designs may be presented.

#### 2.8.3 Goal posts

**Football**
Auckland Council prefers the goal post system in use at Seddon Fields that features a large roller along the back edge of the goal post to spread the weight of the goal posts and prevent toppling. These were manufactured by Pauling Engineering; contact Roger Pauling on 0274 719 466. Free standing goal posts should be designed and constructed to meet BS8462-2005 for deformation of crossbar and BS 8462-2009 for topple-resistance.

Preference is given to the type without a jockey wheel on each side or in each corner as the jockey wheel creates a point load on the surface than can displace infill and makes potential theft of the goal posts easier.

Goal posts are to feature a system of simple net attachment and removal.

**Rugby**

Rugby posts shall be 7m high and built to IRB specifications. Lightweight construction (i.e. fibreglass) is the preferred material.

Turf surfaces are to feature in-ground sleeves covered with purpose made covers that feature turf adhered to the cover when not in use.

### 2.8.4 Signage

Auckland Council shall provide safety and/or information signage for installation at the turf surface. The consultant is to liaise with the communications department at Auckland Council who will provide sign specs.

Signage is to include:
1. A site plan or ‘Way Finder’ for installation at the site showing field configurations and access gate positions.
2. Access gate signs with lettering and numbering.
3. Rules signs for footwear types and general synthetic turf ‘dos and don’ts’.
4. Note that fields designed for football use are not suitable for rugby matches or training and signage must advise users against playing rugby.

### 2.8.5 Boot cleaners

Boot cleaners are to be located next to every access gate. They are to be positioned such that cleaning of the boots does not result in soil/dirt being flicked onto the turf surface or into a nearby drain.

### 2.8.6 Park furniture

Professional service providers are to liaise with their Auckland Council Project Manager to identify specific preferences for rubbish bins, seating, drinking fountains and bike racks, in terms of requirements, designs and location.
3.0 Guidelines for Specifying Synthetic Turf
This section is to assist consultants to specify the synthetic turf component within the broader construction specification documents. It outlines preferred wording and terminology, to be used to ensure a suitable product or range of products is presented to Council by those tendering for the supply and installation of synthetic turf on Council projects.

3.1 FIFA-Specific Terminology
Auckland Council will accept bids that include FIFA 2 Star surfaces from FIFA Preferred Producers and Licensees only, with evidence of successfully passing an extended standard Lisport test (80,000 cycles minimum).

3.2 IRB-Specific Terminology
Auckland Council will accept bids for rugby surface from IRB Preferred Producers and other suppliers with a track record in installing rugby or football fields that have achieved IRB or FIFA certification.

Note to consultants: this has been recommended by the IRB directly to Council. Limiting turf supply in New Zealand to IRB Preferred Producers only will limit the number of potential suppliers considerably.

3.3 Certification and Surface Testing
All completed fields are required to pass FIFA 2 Star or IRB certification (Note IRB and FIFA 1 Star certification for multi-use fields) on completion of installation (allowing for a bedding-in period).

Construction tenders are to include a sum for carrying out the initial field test as appropriate to the surface type.

Successful surface certification shall form part of the defects list.

3.4 Shockpad
Specific shockpad criteria are no longer specified by Council.

3.5 Yarn Quality & Extrusion Options
3.5.1 Yarn quality
Yarn quality is crucial to maximise the lifespan of the turf surface and to ensure a wide range of footwear can be used on the surface which broadens access to sport participation. While options exist from at least one manufacturer that does not include a footwear restriction, this yarn option is not available from all suppliers. As such, Tenderers are requested to bid using their most durable yarn available, and provide durability evidence based on 80,000 Lisport cycles.

3.5.2 Extrusion type
Council has no preference at this time for yarn extrusion types.
3.6 Backing Compound, Backing Material and Product Gauge

3.6.1 Backing compound

Although Auckland Council has no specific preference, backing compounds should contribute to maximising system longevity.

3.6.2 Backing material

Although Auckland Council has no specific preference, high-quality backing materials should contribute to maximising system longevity.

3.6.3 Product gauge

Council has no preference at this time for yarn extrusion types. However, Auckland Council will not accept narrow gauge products as high quality simply because of high Dtex values. Yarn quality is considered more crucial than the overall weight of the product for maximising surface lifespan.

3.7 Infill material

Auckland Council has carried out a review of international research on SBR rubber and carried out locally-based research on the potential environmental effects of SBR rubber. As such, the use of SBR rubber derived from recycled New Zealand truck tyres as infill material, along with sand as a stabilising agent in the base of the turf, is considered a suitable system. Alternative infill materials will be considered on merit and on their cost-competitiveness.

The sand/rubber ratio and relative layer depths must be sufficient to provide adequate player safety while also achieving FIFA or IRB performance criteria as appropriate. The depth of rubber must be sufficient to prevent sand from being exposed during field use and final layer depths must match those indicated on the laboratory test report for the installed product.

3.8 Usage & Maintenance Information

Specification documents are to detail the anticipated extent and type of usage that Auckland Council expects for its synthetic turf fields and then request Tenderers to bid only with products considered suitable.

- Field usage is anticipated to be at least 40 hours per week during winter.
- Field usage is expected to remain high year-round, with summer soccer, touch and the use of two adjacent fields as a cricket outfield possible depending on the site.
- Field usage will inevitably incorporate formal (booked) use and informal (unbooked) use, especially on surfaces that are open to public use.
- Auckland Council shall work closely with the sporting codes and install signage at sites to limit the use of flat-soled footwear during formal/organised sports use. However, the use of flat-soled shoes cannot be effectively policed or prevented and as such, Tenderers are to bid only with surfaces they consider suitable for use in such scenarios, and that usage of this type will not void the product warranty.
- Maintenance shall be carried out to off-set the effects of intensive use and the effects of use involving flat-soled shoes by recreational users.

A copy of the proposed maintenance schedule should be issued with the construction tenders.
4.0 Appendices

Appendix 1: Illustrative Cross-Section

Illustrative cross section 1: Spectator fence, footpath and preferred footpath drainage type
Appendix 2: One option for locating the spectator fence within a raised kerb
Appendix 3 - Synthetic Turf Checklist
The following checklist is to be completed and submitted by every tenderer and for every system they consider suitable for satisfying the tender requirements.
ACPN_

Contract description:

Date:

**Contractors to complete and submit one of these forms for every system being tendered**

Full name of product being tendered: _______________________________

Has this product successfully passed the FIFA Quality Concept Laboratory Test Procedure or IRB equivalent? [yes/no] ______________

If yes, provide evidence in the form of an independent laboratory report.

Has this product successfully passed an extended wear test (80,000 cycles minimum) on a standard Lisport machine?

[yes/no] ______________

If yes, provide evidence from an independent laboratory.

Has a previous installation of this product successfully passed FIFA and/or IRB certification?

[yes/no] ______________

If yes, provide evidence (if this tender is for a rugby field, provide evidence of rugby field certification).

Has a previous installation of this product successfully passed FIFA and/or IRB re-certification?

[yes/no] ______________

If yes, provide evidence of re-certification (if this tender is for a rugby field, provide evidence of rugby field re-certification).

Have tenderers received a copy of the Regional Maintenance Schedule?

[yes/no] ______________
Do tenderers consider the proposed works in the Regional Maintenance Schedule to be sufficient to satisfy warranty requirements?

[yes/no] ________________

If no, please attach an outline of the reasons why or a preferred maintenance programme that is priced.

Does the warranty documentation indicate that the following shall NOT void the warranty?

a. Field use of at least 40 hours per week.

b. Limited use of flat-soled shoes and metal sprigs.

If not, please attach an outline of the reasons why.

How long is the warranty valid for? ____________ years

Please provide warranty details

Has your company (or the turf company you are an agent for) had warranty claims made against any of its turf products in the last 5 years in New Zealand or overseas?

[yes/no] ________________

If yes, provide details of each claim including the issue, the age of the field at the time of the issue and how your company addressed the claim and the final outcome.

Have you also included the following in your tender?

<table>
<thead>
<tr>
<th>A. Evidence of FIFA Preferred Producer or Licensee status or IRB Preferred Producer status</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. A heavy metals statement that guarantees the absence of heavy metals used in the production of the yarn</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C. Warranty details</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>